WHAT IS CLAIMED IS:

1. A method for treating mammalian conditions characterized by decreases in bone mass, said method comprising administering to a subject in need thereof an effective bone mass-increasing amount of a biologically active peptide consisting essentially of the formula selected from:

(a) X_{01}ValX$_{02}$GluIleX$_{03}$LeuMetHisX$_{04}$X$_{05}$X$_{06}$LysX$_{07}$LeuAsnSerMetGlu ArgValGluTrpLeuArgLysLysLeuGlnAspValHisAsnTyr-NH_2(SEQ. ID. NO. 31);

(b) analogs or fragments thereof, containing amino acids 1-15, 1-16, 1-17, 1-18, 1-19, 1-20, 1-21, 1-22, 1-23, 1-24, 1-25, 1-26, 1-27, 1-28, 1-29, 1-30, 1-31, 1-32, 1-33, or 1-34;

(c) pharmaceutically acceptable salts thereof; or

(d) N - or C - derivatives thereof;

wherein:

X_{01} is Gly, Ser, Ala or Aib;

X_{02} is Ala, Ser or Aib;

X_{03} is Asp, Glu or Lys;

X_{04} is Asp, Glu or Lys;

X_{05} is Arg, Har or Leu;

X_{06} is Ala or Gly;

X_{07} is Trp or His.

2. A method for treating mammalian conditions characterized by decreases in bone mass, said method comprising administering to a subject in need thereof an effective bone mass-increasing amount of a biologically active peptide consisting essentially of the formula selected from:

(a) X_{01}ValX$_{02}$GluIleX$_{03}$LeuMetHisX$_{04}$X$_{05}$X$_{06}$LysX$_{07}$ (SEQ. ID. NO. 1);

(b) analogs or fragments thereof, containing amino acids 1-9, 1-10, 1-11, 1-12, 1-13, 1-14;

(c) pharmaceutically acceptable salts thereof; or

(d) N - or C - derivatives thereof;

wherein:

X_{01} is Gly, Ser, Ala or Aib;

X_{02} is Ala, Ser or Aib;

X_{03} is Asp, Glu or Lys;

X_{04} is Asp, Glu or Lys;

X_{05} is Arg, Har or Leu;

X_{06} is Ala or Gly;

X_{07} is Trp or His.

3. A method for treating mammalian conditions characterized by decreases in bone mass, said method comprising administering to a subject in need thereof an effective bone mass-increasing amount of a composition comprising a biologically active peptide of claim 1 or claim 2 and a pharmaceutically acceptable carrier.

4. A method for determining rates of bone reformation, bone resorption and/or bone remodeling comprising administering to a patient an effective amount of a peptide of claim 1 or claim 2 and determining the uptake of said peptide into the bone of said patient.

5. The method of claim 3, wherein said condition to be treated is osteoporosis.

6. The method of claim 3, wherein said condition to be treated is old age osteoporosis.

7. The method of claim 3, wherein said condition to be treated is post-menopausal osteoporosis.

8. The method of claim 3, wherein said effective amount of said peptide for increasing bone mass is from about 0.01 μg/kg/day to about 1.0 μg/kg/day.

9. The method of claim 3, wherein the method of administration is parenteral.

10. The method of claim 3, wherein the method of administration is subcutaneous.

11. The method of claim 3, wherein the method of administration is nasal insufflation.

12. A method of making the peptide of claim 1 or claim 2, comprising synthesizing said peptide by solid phase synthesis.

13. A method of making the peptide of claim 1 or claim 2, comprising synthesizing said peptide by liquid phase synthesis.

14. The method of making the peptide of claim 1 or claim 2, wherein said peptide is protected by FMOC.

15. The method of making the peptide of claim 1 or claim 2, wherein said peptide is prepared using an orthogonal protection strategy with allyl-protected amino acids.

16. A method of increasing cAMP in a mammalian cell having PTH-1 receptors, the method comprising contacting the cell with a sufficient amount of the polypeptide of claim 1 or claim 2 to increase cAMP production.